Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for treating a subject having an infection caused by [[an]] a Stx-producing organism by administering to the subject a therapeutically effective amount of hop bract tannin.

Claim 2 (original): The method of claim 1 further comprising administering to the subject a therapeutically effective amount of an antibiotic, the antibiotic being effective to treat an infection with the Stx-producing organism.

Claim 3 (original): The method of claim 2, wherein the antibiotic is selected from the group consisting of cefixime, tetracycline, ciprofloxacin, co-trimoxazole, norfloxacin, ofloxacin, fosfomycin and kanamycin and combinations thereof.

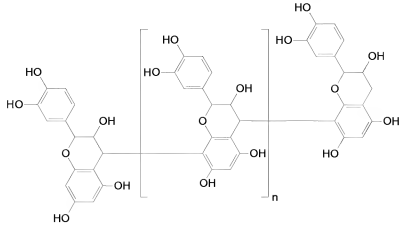
Claim 4 (original): The method of claim 1, wherein the hop bract tannin comprises a catechin polymer.

Claim 5 (original): The method of claim 4, wherein the catechin polymer comprises a polycatechin between a 10-mer and a 30-mer.

Claim 6 (original): The method of claim 1, wherein the infection is an enteric infection.

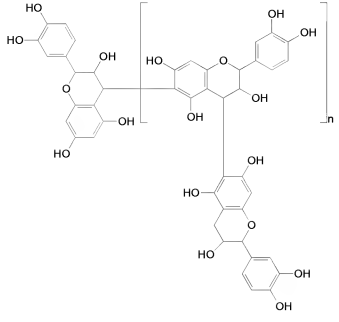
Claim 7 (original): The method of claim 6, wherein the hop bract tannin is administered enterically.

Claim 8 (original): The method of claim 5 where the polycatechin has the formula



where n=8 to 28.

Claim 9 (original): The method of claim 5 where the polycatechin has the formula



where n = 8 to 28.

Claim 10 (original): The method of claim 1, wherein the hop bract tannin comprises a fraction isolated from a hop bract extract.

Claim 11 (original): The method of claim 10, wherein the fraction has a weight-average molecular mass between 5kDa and 30 kDa.

Claim 12 (currently amended): The method of claim 1, wherein the Stx-producing organism comprises [[an]] a Stx1-producing organism.

Claim 13 (original): The method of claim 1, wherein the Stx-producing organism is a Shiga toxin-producing *Eschericia coli*.

Claim 14 (original): The method of claim 1, wherein the infection is an enteric infection, and the hop bract tannin comprises a polycatechin between a 10-mer and a 30-mer, which is administered enterically.

Claim 15 (original): The method of claim 14, wherein the infection presents clinically as severe diarrhea, hemorrhagic colitis, hemolytic uremic syndrome and thrombotic thrombocytopenic purpura.

Claim 16 (canceled).

Claim 17 (currently amended): The method of claim 1, wherein administering to the subject a therapeutically effective amount of hop bract tannin comprises:

selecting a hop bract tannin having an affinity for [[an]] a Stx produced by the Stx-producing organism; and

administering the hop bract tannin to the subject enterically in an amount effective to alleviate a clinical presentation of the infection.

Claim 18 (original): The method of claim 17, wherein selecting comprises isolating hop bract tannin from a hop bract extract by affinity chromatography with a chromatographic matrix derivatized with the Stx.

Claim 19 (original): The method of claim 17, wherein selecting comprises obtaining a high molecular weight fraction of a hop bract extract.

Claim 20 (original): The method of claim 19, wherein the high molecular weight fraction has a weight-average molecular weight of 5 kDa or greater.

Claim 21 (original): The method of claim 17, wherein selecting comprises detecting a hop bract tannin component having an affinity for the Stx.

Claim 22 (previously presented): The method of claim 21, wherein detecting a component having an affinity for the Stx comprises detecting a signal generated by a biosensor, the biosensor having a hop bract tannin as a bioreceptor portion of the biosensor.

Claim 23 (original): The method of claim 22 where the hop bract tannin is a polycatechin.

Claim 24 (original): The method of claim 23 where the polycatechin is between a 10-mer and a 30-mer polycatechin.

Claims 25-26 (canceled).

Claim 27 (original): The method of claim 17, wherein the clinical presentation of the infection is one or more of severe diarrhea, hemorrhagic colitis, hemolytic uremic syndrome and thrombotic thrombocytopenic purpura.

Claim 28 (canceled).

Claim 29 (currently amended): A method for detecting the presence of [[an]] a Stx in a biological sample, comprising:

contacting the biological sample with a hop bract tannin; and

detecting a macromolecular complex between the Stx and the hop bract tannin.

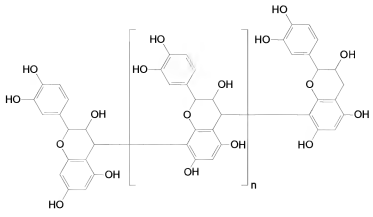
Claim 30 (original): The method of claim 29, wherein detecting comprises detecting a precipitate comprising the complex.

Claim 31 (original): The method of claim 29, wherein detecting the macromolecular complex between the hop bract tannin and the Stx comprises detecting an electrophoretic pattern associated with the presence of the macromolecular complex in the sample.

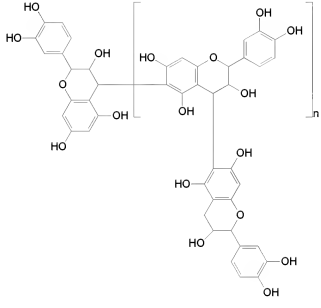
Claim 32 (original): The method of claim 29, wherein the hop bract tannin serves as a bioreceptor of a biosensor and detecting comprises measuring a change in a property of a transducer of the biosensor.

Claim 33 (original): The method of claim 29, wherein the hop bract tannin is a polycatechin between a 10-mer and a 30-mer.

Claim 34 (currently amended): The method of claim 29, wherein the polycatechin has the ~~foruma~~ formula



where n = 8 to 28, or



where n = 8 to 28.

Claim 35 (original): The method of claim 29, wherein the hop bract tannin comprises a fraction isolated from a hop bract extract.

Claim 36 (original): The method of claim 35, wherein the fraction has a weight-average molecular mass between 5kDa and 30 kDa.

Claim 37 (currently amended) A method for isolating and purifying Stx-binding polyphenols, comprising:

contacting a mixture comprising a Stx-binding polyphenolic compound isolated from *Humulus lupulus* with [[an]] a Stx to form a macromolecular complex between the compound and the Stx;

isolating the macromolecular complex; and

separating the polyphenolic compound from the macromolecular complex to obtain a purified sample of the polyphenolic compound that binds Stx.

Claim 38 (original): The method of claim 37, wherein the Stx is coupled to an activated chromatographic matrix.

Claim 39 (currently amended): The method of claim 37, wherein the Stx comprises [[he]] the bioreceptor of a biosensor.

Claim 40 (original): The method of claim 38, wherein the Stx is Stx1.

Claim 41 (currently amended): A method for ~~prophylatic~~ prophylactic or post-exposure treatment of an inhaled Stx comprising administering a therapeutically effective amount of hop bract tannin intranasally to a subject.

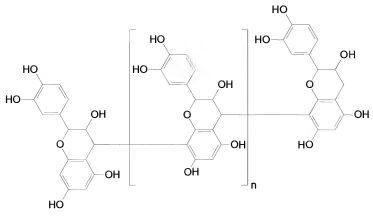
Claim 42 (original): A biosensor, comprising:

a hop bract tannin as a bioreceptor, and

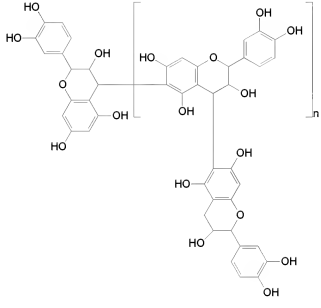
a transducer.

Claim 43 (original): The biosensor of claim 42, wherein the hop bract tannin is a polycatechin between a 10-mer and a 30-mer.

Claim 44 (currently amended): The ~~method~~ biosensor of claim 43, wherein the polycatechin has the ~~forumla~~ formula



where n = 8 to 28, or



where n = 8 to 28.

Claim 45 (currently amended): The ~~method~~ biosensor of claim 42, wherein the hop bract tannin comprises a fraction isolated from a hop bract extract.

Claim 46 (original): The ~~method~~ biosensor of claim 45, wherein the fraction has a weight-average molecular mass between 5kDa and 30 kDa.

Claims 47-57 (canceled).

Claim 58 (original): A method for neutralizing a bacterial toxin, comprising:

providing a hop bract tannin; and

contacting the bacterial toxin with the hop bract tannin to neutralize the toxin.

Claim 59 (original): The method of claim 58, wherein the bacterial toxin is selected from the group consisting of Shiga toxins and cholera toxins.

Claim 60 (original): The method of claim 58, wherein the hop bract tannin comprises a subfraction having a weight-average molecular weight from 5 kDa to 30 kDa.

Claim 61 (original): The method of claim 58, wherein the hop bract tannin comprises a polycatechin selected from the group of 10-mers to 30-mers, and mixtures thereof.

Claim 62 (original): An isolated polyphenolic component of a high molecular weight fraction of a hop bract extract, the high molecular weight fraction having a weight average molecular weight of greater than 5 kDa.

Claim 63 (original): A subfraction of a high molecular weight fraction of a hop bract extract, the high molecular weight fraction having a weight average molecular weight of greater than 5 kDa.

Claim 64 (original): The subfraction of claim 63, wherein the subfraction has a weight average molecular weight range selected from the group consisting of 5 kDa-30kDa, 5kDa-10kDa, 5kDa-8kDa, 8kDa-30kDa, 8kDa-10kDa and 10kDa-30kDa.